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## **The transverse feedback system for FCC\_ee**

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## **Superconducting thin films developments for RF cavities at CEA**

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## **HOM coupler sensitivity**

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## **TEM analysis of coatings for RF cavities**

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Nb3Sn thin films are a promising candidate for use in superconducting radio frequency (SRF) cavities in order to achieve higher operating temperatures and reduced surface resistances.

Thin film with A15 phase can be manufactured e.g. by chemical vapor diffusion or DC magnetron sputtering.

In this work within the FCC Study, we present TEM, SEM and FIB investigations performed on thin Nb3Sn films produced by HIPIMS (High-Power Impulse Magnetron Sputtering) on copper substrates. We show that very good films can already be produced with this technique and how manufacturing conditions influence the quality of the films.

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